**Introduction**

* The first table below explains suggested data requirements that are believed to be needed to provide BEIS with a clear and proficient understanding and interpretation of the key issues, drivers, and impacts in critical mineral markets and potential implications for secondary markets including technologies associated with the energy transition.
* The second table explains suggested data requirements that are needed for BEIS’ regular monitoring of European gas and LNG, and interpretation of the key issues, drivers, price fluctuations and impacts in gas markets.
* We would also appreciate the inclusion of additional or alternative suggestions where appropriate if they are felt to better suit BEIS purposes.

We ask you to complete the last two columns of each table by: 1) identifying which indicators/data points/analysis you can provide or not; 2) providing any relevant comments regarding your answer to point 1 (e.g., can provide data but in different units/ format/other, can provide alternative X, suggested change to Y, etc).

We would also appreciate the inclusion of additional or alternative suggestions where appropriate if they are felt to better suit BEIS purposes.

Please could you complete these tables following the instructions above and return your responses via email to internationalclimateandenergy.procurement@beis.gov.uk **by 12:00 November 3rd.**

**Critical Minerals data**

| **Topic** | **Indicator** | **Units** | **Geographic coverage** | **Period** | **Frequency of updates** | **Format** | **Notes** | **Can deliver? Please include YES/ NO** | **Comments:** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Demand data** | **Solar PV demand outlook**  | GW | Global; and Regional | 2020 to 2030, 2040, 2050 | Monthly or Quarterly  | Excel  |   |  |  |
| **Wind turbine demand outlook**  | GW | Global; and Regional | 2020 to 2030, 2040, 2050 | Monthly or Quarterly  | Excel |    |  |  |
| **Battery demand outlook**  | GW/GWh(?) | Global; and Regional | 2020 to 2030, 2040, 2050 | Monthly or Quarterly  | Excel |     |  |  |
| **Electric vehicles demand outlook**  | Thousands/millions | Global; and Regional | 2020 to 2030, 2040, 2050 | Monthly or Quarterly  | Excel |     |  |  |
| **Minerals demand from solar PV technologies**, historic & forecast; breakdown by mineral | Tons  | Global | Quarterly historic data & forecast for at least next 6-12 months | Monthly or Quarterly  | Excel |  |  |  |
| **Minerals demand from wind turbines**, historic & forecast; breakdown by mineral | Tons  | Global | Quarterly historic data & forecast for at least next 6-12 months | Monthly or Quarterly  | Excel |  |  |  |
| **Minerals demand from batteries**, historic & forecast; breakdown by mineral | Tons | Global | Quarterly historic data & forecast for at least next 6-12 months | Monthly or Quarterly  | Excel |   |  |  |
| **Minerals demand from electric vehicles**, historic & forecast; breakdown by mineral | Tons | Global | Quarterly historic data & forecast for at least next 6-12 months | Monthly or Quarterly  | Excel |   |  |  |
| **Supply data**          | **Mined supply** of lithium, cobalt, nickel, copper, graphite and aluminium resources; historic & forecast; by mineral | Tons | Global; and by country | Quarterly historic data & forecast for at least next 6-12 months | Monthly or Quarterly  | Excel |  |  |  |
| **Mining capacity** for lithium, cobalt, nickel, copper, graphite and aluminium resources; breakdown by operational and pipeline capacity; historic & forecast; by mineral  | Tons per year | Global; and by country | Quarterly historic data & forecast for at least next 6-12 months | Monthly or Quarterly  | Excel |   |  |  |
| **Investment in new mining capacity** for lithium, cobalt, nickel, copper, graphite and aluminium resources; historic & forecast; by mineral  | Million USD or Million USD /ton | Global; by country; by company | Quarterly historic data & forecast for at least next 6-12 months | Monthly or Quarterly  | Excel |   |  |  |
| **Chemical supply** of lithium, cobalt, nickel, copper, graphite and aluminium products; historic & forecast; by mineral  | Tons | Global; By country | Quarterly historic data & forecast for at least next 6-12 months | Monthly or Quarterly  | Excel | Chemical supply for these minerals includes: lithium carbonate, lithium hydroxide, nickel sulfate, cobalt sulfate, graphite flake, copper oxide and copper sufide, cobalt hydroxide and cobalt sulfate.  |  |  |
| **Cathode, anode and precursor materials supply**; by mineral | Tons/units  | Global; By country | Quarterly historic data & forecast for at least next 6-12 months | Monthly or Quarterly  | Excel | Cathodes and precursor materials include: copper cathode, lithium battery cathode low/high nickel and cobalt, class 1 and class 2 nickel.  |  |  |
| **Processing capacity** for lithium, cobalt, nickel, copper, graphite and aluminium resources; breakdown by operational and pipeline capacity; by mineral | Tons per year  | Global; By country; by company | Quarterly historic data & forecast for at least next 6-12 months | Monthly or Quarterly  | Excel |   |  |  |
| **Solar PV modules production**, historic & forecast | GW | Global; By country | Quarterly historic data & forecast for at least next 6-12 months | Monthly or Quarterly  | Excel |    |  |  |
| **Wind turbine production**, historic & forecast  | GW | Global; By country | Quarterly historic data & forecast for at least next 6-12 months | Monthly or Quarterly  | Excel |    |  |  |
| **Battery production**, historic & forecast | GW/GWh | Global; By country | Quarterly historic data & forecast for at least next 6-12 months | Monthly or Quarterly  | Excel |    |  |  |
| **Electric Vehicles production**, historic & forecast | Thousands/millions | Global; By country | Quarterly historic data & forecast for at least next 6-12 months | Monthly or Quarterly  | Excel |   |  |  |
| **Pricing data**  | **Pricing data for mined minerals** in regional/global markets: lithium, cobalt, nickel, copper, graphite and aluminium resources; historic | USD/ton | Global; and Regional | Weekly, monthly or quarterly data | Monthly or Quarterly  | Excel  |   |  |  |
| **Pricing data for chemical supply** in regional/global markets: lithium, cobalt, nickel, copper, graphite and aluminium resources; historic | USD/ton | Global; and Regional | Weekly, monthly or quarterly data  | Monthly or Quarterly  | Excel  | Cathodes and precursor materials include copper cathode, lithium battery cathode low/high nickel and cobalt, class 1 and class 2 nickel.  |  |  |
| **Trade Flows**        | **Export data by weight for mined products**: lithium, cobalt, nickel, copper, graphite and aluminium resources | Tons  | Global; By country | Historic monthly or quarterly data  | Monthly or Quarterly  | Excel |     |  |  |
| **Export data by value for mined products**: lithium, cobalt, nickel, copper, graphite and aluminium resources | Million USD | Global; By country | Historic monthly or quarterly data  | Monthly or Quarterly  | Excel |  |  |
| **Export data by weight for refined products** lithium, cobalt, nickel, copper, graphite and aluminium resources; breakdown by country | Tons | Global; By country | Historic monthly or quarterly data  | Monthly or Quarterly  | Excel |  |  |
| **Export data by value for refined products** lithium, cobalt, nickel, copper, graphite and aluminium resources; breakdown by country | USD or Million USD | Global; By country | Historic monthly or quarterly data  | Monthly or Quarterly  | Excel |  |  |
| **Import data by weight for mined products** lithium, cobalt, nickel, copper, graphite and aluminium resources; breakdown by country | Tons  | Global; By country | Historic monthly or quarterly data  | Monthly or Quarterly  | Excel |  |  |
| **Import data by value for mined products** lithium, cobalt, nickel, copper, graphite and aluminium resources; breakdown by country | USD or Million USD | Global; By country | Historic monthly or quarterly data  | Monthly or Quarterly  | Excel |  |  |
| **Import data by weight for refined products** lithium, cobalt, nickel, copper, graphite and aluminium resources; breakdown by country | Tons  | Global; By country | Historic monthly or quarterly data  | Monthly or Quarterly  | Excel |  |  |
| **Import data by value for refined products** lithium, cobalt, nickel, copper, graphite and aluminium resources; breakdown by country | USD or Million USD | Global; By country | Historic monthly or quarterly data  | Monthly or Quarterly  | Excel |  |  |
| **Outlook** | Analytical reports and commentary on key issues in critical minerals markets in the next 3 to 6 months and potentially further ahead (6 to 24 months). To provide direct access to analytical experts and provide timely face-to-face presentations on key publications.  | - | Global | - | Weekly, Monthly or Quarterly | Excel; Pdf; Website/online platform |   |  |  |

\* The words mineral and metal are used interchangeably

**Gas data**

| **Topic** | **Indicator** | **Units** | **Geographic coverage** | **Period** | **Frequency of updates** | **Format** | **Notes** | **Can deliver? Please include YES/ NO** | **Comments:** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Gas market news and commentary** | Comprehensive coverage of gas markets including regular analysis of topical gas market issues; key price drivers, important market developments, related news and key uncertainties going forward. Direct access to analytical experts and timely face-to-face presentations on key publications. | **-** | At least European and advantageous to provide global Liquified Natural Gas (LNG);  | - | Weekly, Monthly or Quarterly | Excel; Pdf; Website/online platform | Countries of particular interest include: Algeria, Australia, China, India, Japan, Norway, Qatar, Russia, South Korea, Ukraine, USA and EU member states (including the UK).  |  |  |
| **Insight, analysis and news reporting on global pipelines and LNG** | Information and data on the current pipeline architecture bringing gas to, and transporting gas within Europe and the future outlook. |  | At least European and advantageous to provide global Liquified Natural Gas (LNG); | - | Weekly, Monthly or Quarterly | Excel; Pdf; Website/online platform | Countries of particular interest include: Algeria, Australia, China, India, Japan, Norway, Qatar, Russia, South Korea, Ukraine, USA and EU member states (including the UK). |  |  |
| Information and key statistics on LNG regasification terminals in Europe and the future outlook. |  | At least European and advantageous to provide global Liquified Natural Gas (LNG); | - | Weekly, Monthly or Quarterly | Excel; Pdf; Website/online platform |  |  |
| LNG market developments in European, Asian, American and other markets. | **-** | At least European and advantageous to provide global Liquified Natural Gas (LNG); | - | Weekly, Monthly or Quarterly | Excel; Pdf; Website/online platform |  |  |
| Long-term forecast of LNG flows to Europe, analysis of the outlook for LNG supply and where future LNG supply for Europe could come from and views on LNG trade into Europe over the short-term coverage.  |  | At least European and advantageous to provide global Liquified Natural Gas (LNG); | - | Weekly, Monthly or Quarterly | Excel; Pdf; Website/online platform |  |  |
| Outlook for investment in LNG export facilities globally. | Value of projects and capacity volumes (mt) | At least European and advantageous to provide global Liquified Natural Gas (LNG); |  | Weekly, Monthly or Quarterly | Excel; Pdf; Website/online platform |  |  |
| **Country reports and analysis** | Gas import/export infrastructure and potential future developments. |  | At least European and advantageous to provide global Liquified Natural Gas (LNG); |  | Weekly, Monthly or Quarterly | Excel; Pdf; Website/online platform | Countries of particular interest include: Algeria, Australia, China, India, Japan, Norway, Qatar, Russia, South Korea, Ukraine, USA and EU member states (including the UK). |  |  |
| Production costs. Ownership, structure and the policy framework for the upstream sector and investment outlook. |  | At least European and advantageous to provide global Liquified Natural Gas (LNG); |  | Weekly, Monthly or Quarterly | Excel; Pdf; Website/online platform |  |  |
| **Others**  | The outlook for production and gas imports/exports (including sources/destinations). | USD, Bcm | At least European and advantageous to provide global Liquified Natural Gas (LNG); |  | Weekly, Monthly or Quarterly | Excel; Pdf; Website/online platform | Countries of particular interest include: Algeria, Australia, China, India, Japan, Norway, Qatar, Russia, South Korea, Ukraine, USA and EU member states (including the UK). |  |  |
| Historical and forecast data on the drivers of gas in the energy mix, including in the power generation sector. |  | At least European and advantageous to provide global Liquified Natural Gas (LNG); |  | Weekly, Monthly or Quarterly | Excel; Pdf; Website/online platform |  |  |
| Demand drivers and climate scenario analysis. | **-** | At least European and advantageous to provide global Liquified Natural Gas (LNG); |  | Weekly, Monthly or Quarterly | Excel; Pdf; Website/online platform |  |  |
| Market structure and regulation | - | At least European and advantageous to provide global Liquified Natural Gas (LNG); |  | Weekly, Monthly or Quarterly | Excel; Pdf; Website/online platform |  |  |
| **Projections for European gas supply, demand and prices.** | Price projections within Europe, the Americas and Asia and thematic pieces on key gas supply and demand drivers. Including analysis of different climate scenarios.  | USD | Europe, the Americas and Asia |  | Weekly, Monthly or Quarterly | Excel  |  |  |  |